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# NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of the Application under  
Part IV of the National Energy Board Act  
Respecting Tariffs and Tolls to be Charged

by

INTERPROVINCIAL PIPE LINE LIMITED

JUNE 1980





NATIONAL ENERGY BOARD

IN THE MATTER OF THE NATIONAL Energy  
Board Act and the Regulations made  
thereunder, and

NATIONAL ENERGY BOARD

IN THE MATTER OF THE APPLICATION OF  
INTERPROVINCIAL PIPE LINE LIMITED  
for certain orders under Part IV of the  
National Energy Board Act and the  
Regulations made thereunder, and

REASONS FOR DECISION

HEARD IN OTTAWA, ONTARIO ON:

13, 14, 15, 16, and 21 May 1980

by:

In the Matter of the Application under  
Part IV of the National Energy Board Act  
Respecting Tariffs and Tolls to be Charged by

INTERPROVINCIAL PIPE LINE LIMITED

O.P. 10000

R.E. 10000

R.P. 10000

INTERPROVINCIAL PIPE LINE LIMITED

Air Canada

Canadian Pacific Air Lines Limited

Compagnie Nationale Air France

Alitalia-Lince Aerem Italiana S.p.A.

Canadian Airlines Inc.

British Airways Board

June 1980

Canadian Airlines Inc.

Canadian Airlines Inc.

Canadian Airlines Inc.

Canadian Airlines Inc.

Canadian Airlines Inc.

R.E. 10000

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Canadian Airlines Inc.

Canadian Airlines Inc.

Ce rapport est publié  
séparément dans les deux  
langues officielles



(i)

NATIONAL ENERGY BOARD

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder, and

IN THE MATTER OF an application by Interprovincial Pipe Line Limited (hereinafter called "the Applicant") for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-J1-2.

HEARD IN Ottawa, Ontario on:

13, 14, 15, 16, and 21 May 1980

BEFORE:

R.F. Brooks  
J. Farmer  
J.L. Trudel

Presiding Member  
Member  
Member

APPEARANCES:

J.W. Brown	)	
E.G. Sheasby	)	Interprovincial Pipe Line Limited
R.P. Smith	)	
	)	Air Canada
	)	Canadian Pacific Air Lines Limited
	)	Compagnie Nationale Air France
	)	Alitalia-Linee Aeree Italiane S.P.A.
	)	American Airlines Inc.
R.F. O'Brien	)	British Airways Board
	)	Delta Airlines Inc.
	)	Deutsche Lufthansa AG,
	)	Eastern Air Lines Inc.
	)	Nordair Ltée
	)	Swissair Swiss Air Transport
	)	Company Limited
F. Saville	)	Dome Petroleum Limited
E.F. Ryan	)	Imperial Oil Limited
J. Hutcheson	)	



(ii)

J.J. Kinahan	)	
E.B. McDougall	)	Petrosar Limited
O.M. Sharma	)	
T. Dalglish	)	TransCanada PipeLines Limited
E.B. McDougall	)	Trans-Northern Pipe Line Company
D. Wires	)	Ultramar Canada Inc.
D. Barker	)	
A. Butler	)	Union Gas Limited
D. Houde	)	Procureur général du Québec
M. Ringuette	)	
A. Biguë	)	Board Counsel
A.R. Macdonald	)	

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## APPENDIX

### I Tariff Order



ABBREVIATIONS

"(the) Applicant", "(the) Company", "Interprovincial", or "IPL"	- Interprovincial Pipe Line Limited
"(the) Board" or "(the) NEB"	- (the) National Energy Board
"Dome"	- Dome Petroleum Limited
"(the) NEB Act"	- (the) National Energy Board Act
"NGL"	- natural gas liquids
"OPUAR"	- Oil Pipeline Uniform Accounting Regulations.

DEFINITIONS

Integrated System	- means the entire Interprovincial Canadian system.
Montreal Extension	- means that part of the Interprovincial pipeline system in Canada extending from Sarnia to Montreal that was constructed under the authority of Certificate of Public Convenience and Necessity OC-30, and any addition thereto from time to time authorized by the Board.
Older System	- means that part of the Interprovincial pipeline system in Canada other than the Montreal Extension.

ABBREVIATIONS

"(the) Applicant",	- International Pipe Line Limited
"(the) Company",	
"International", or	
"1952"	
"(the) Board" or	- (the) National Energy Board
"(the) N.E.B."	
"Done"	- Done Petroleum Limited
"(the) N.E.B. Act"	- (the) National Energy Board Act
"NGL"	- natural gas liquids
"O.P.R."	- Oil Pipeline Bill of Rights Act
	Regulations.

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# CHAPTER 1

## THE APPLICATION

Interprovincial Pipe Line Limited ("The Applicant", "Interprovincial", "IPL", or "The Company") was incorporated by a Special Act of the Parliament of Canada on 30 April 1949, continued as a company by letters patent issued on 1 August 1973 under the Canada Corporations Act, and is a company within the meaning of the National Energy Board Act ("the NEB Act"). The powers of the Applicant include those of constructing and operating interprovincial and international pipelines and related facilities for the transmission of oil.

Interprovincial owns and operates a pipeline system from Edmonton, Alberta to a point on the international boundary between Canada and the United States near Gretna, Manitoba, and from a point on the international boundary in the St. Clair River near Sarnia, Ontario to Montreal, Quebec, with branch lines from Westover, Ontario to a point on the international boundary in the Niagara River near Chippewa, Ontario, and to Nanticoke, Ontario. The pipeline system owned and operated by Interprovincial is a "pipeline" within the meaning of the NEB Act.

By an application dated 21 December 1979, as amended, Interprovincial applied, under Part IV of the NEB Act, for orders fixing the just and reasonable tolls the Applicant may charge for, or in respect of, the transportation of crude oil and other liquid hydrocarbons and for such other Order or Orders as would enable the Applicant to file a tariff containing tolls which are just and reasonable. The tolls currently charged by Interprovincial are set out in Tariffs NEB No. 84 to NEB No. 94 inclusive and NEB No. 96. These tolls were designed from Board Order No. TO-3-78, dated May 1978, following a Public Hearing of the Company's Rate Case held in several sessions in 1976, 1977, and 1978.



By Order No. RH-3-80, the National Energy Board ("the NEB" or "the Board") set down the application for public hearing commencing on 13 May 1980 in Ottawa, Ontario. The hearing concluded on 21 May 1980.

Intervenors

Written interventions in respect of the application were filed at the hearing on behalf of interested parties, including Interprovincial's shippers, customers (including several airlines), other pipeline companies under the Board's jurisdiction, and the Attorney General of the Province of Quebec.

The intervenors provided an expression of their views through the interventions themselves, through cross-examination of Interprovincial's witnesses, or through final argument.

CHAPTER 2  
TEST PERIOD

A test period is a period of time during which costs and revenues are considered to be representative of the period in which new rates and tolls will apply. A base year is the last year for which actual costs are available and the base year costs provide the basic input that is adjusted to determine costs for the test period.

In the application filed on 22 December 1979, Interprovincial presented financial information for the calendar year 1978 as the base year, adjusted to project costs for a test year commencing 1 January 1980. Prior to commencement of the hearing, actual data for the year 1979 became available and were submitted by the Company at the Board's request, together with explanations for variances from the base year figures. The costs projected for the calendar year 1980, adjusted as necessary as a result of evidence presented at the hearing, constitute the basis for the calculation of tolls for the test year 1980.





## CHAPTER 3

RATE BASE INCLUDING ASSETS SPECIALLY CLASSIFIED3.0 Rate Base

In the application, the rate bases for the Older System and the Montreal Extension consisted of the estimated mean net book values during the test year which were based on net book values at the end of the base year and estimated net book values at the end of the test year. During the hearing the Applicant filed revised test year averages based on the actual costs and accumulated depreciation at 31 December 1979 and the estimated values at 31 December 1980. Consequently, the rate bases submitted by the Applicant for the test year consisted of estimated average costs less estimated average accumulated depreciation during the test year 1 January to 31 December 1980.

Board adjustments to the Applicant's submitted values are listed in sections 3.1 and 3.2 and explained in sections 3.3, 3.4 and 3.5.

3.1 Summary of Rate Base - Older System

The principal adjustments that the Board has made to the rate base as applied for by the Company are:

- (a) the transfer of assets that are not fully used and useful in providing transportation service from Assets Specially Classified to Transportation Plant has not been allowed. These assets are to continue to be amortized and earn a return equal to one-half that applicable to Plant in Service, as prescribed in the Board's Reasons for Decision dated March 1978 <sup>(1)</sup>. See section 3.3.

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1. Reasons for Decision on Review of its Decision on Part II of a Public Hearing Respecting Tariff and Tolls Charged by Interprovincial Pipe Line Limited, March 1978.

- (b) the transfer of the cost and accumulated depreciation of three tanks at Sarnia from the accounts of the Montreal Extension to those of the Older System has not been allowed.
- (c) the replacement of mainline pipe near Edmonton constitutes an extraordinary retirement and the rate base has been adjusted accordingly. See section 3.5.

Tables 1 and 1A which follow contain details of the rate base of the Older System as submitted by the Company and as determined by the Board.

The Board has accepted in the rate base of the Older System all class C construction costs during 1978, 1979 and 1980 as they represent plant that is or will be used and useful in oil pipeline transportation service during the test year. The Board has also accepted as reasonable in determining the rate base of the Older System, the cost of two tanks at Sarnia which were completed early in January 1980 as if included in the net book value at the end of 31 December 1979.

TABLE 1Determination of Rate Base - Older System  
(\$000)

	<u>Company's Revised Application</u>	<u>NEB Adjustments</u>	<u>NEB Determination</u>
<u>(a) Full Rate of Return</u>			
Transportation plant	429,312	(25,626)	403,686
Other plant	5,115	(4,870)	245
Accumulated depreciation Transportation plant	(183,794)	11,695	(172,099)
Accumulated depreciation Other plant	<u>(4,307)</u>	<u>4,213</u>	<u>(94)</u>
Net plant in service	246,326	(14,588)	231,738
Allowance for working capital	<u>10,105</u>	<u>(3,876)</u>	<u>6,229</u>
Total rate base full rate of return	<u>256,431</u>	<u>(18,464)</u>	<u>237,967</u>
<u>(b) One-Half Rate of Return</u>			
Assets specially classified	-	25,939	25,939
Accumulated depreciation	<u>-</u>	<u>(17,091)</u>	<u>(17,091)</u>
Net assets specially classified	<u>-</u>	<u>8,848</u>	<u>8,848</u>
Total rate base - Older System	<u>256,431</u>	<u>(9,616)</u>	<u>246,815</u>

( ) indicates deduction



TABLE 1A

Summary of Adjustments to Rate Base - Older System  
(excluding adjustment of allowance for working capital)  
(\$000)

<u>Explanation</u>	<u>Transportation Plant</u>	<u>Accumulated Depreciation</u>
Disallowance of transfer of 3 tanks from the Montreal Extension	( 4,557)	832
Reclassification of assets specially classified	(21,069)	12,878
Extraordinary loss - 1979		( 724)
Extraordinary loss - 1980		( 1,291)
	<u>(25,626)</u>	<u>11,695</u>

<u>Explanation</u>	<u>Other Plant</u>	<u>Accumulated Depreciation</u>
Reclassification of assets specially classified	<u>(4,870)</u>	<u>4,213</u>

<u>Explanation</u>	<u>Assets Specially Classified</u>	<u>Accumulated Depreciation</u>
From transportation plant	21,069	(12,878)
From other plant	4,870	( 4,213)
	<u>25,939</u>	<u>(17,091)</u>

### 3.2 Summary of Rate Base - Montreal Extension

The principal adjustment to the rate base of the Montreal Extension as applied for by the Company was the disallowance by the Board of a request to transfer from the Montreal Extension rate base to the Older System rate base the net book value of three tanks and related equipment at Sarnia that were constructed under the authority of the Board's Certificate of Public Convenience and Necessity OC-30. See section 3.4.2.

Tables 2 and 2A which follow contain details of the rate base of the Montreal Extension as submitted by the Company and as determined by the Board.

The Board has accepted as reasonable in the circumstances the Company's inclusion in rate base of a payment of \$350,000 in settlement of a claim by the construction contractor on Spread 7.

TABLE 2

#### Determination of Rate Base - Montreal Extension ( \$000 )

	<u>Company's Revised</u> <u>Application</u>	<u>NEB</u> <u>Adjustments</u>	<u>NEB</u> <u>Determination</u>
Transportation plant	233,459	4,557	238,016
Accumulated depreciation	(47,500)	(873)	(48,373)
	<hr/>	<hr/>	<hr/>
Net plant in service	185,959	3,684	189,643
Allowance for working capital	1,051	(242)	809
	<hr/>	<hr/>	<hr/>
Total rate base - Montreal Extension	<u>187,010</u>	<u>3,442</u>	<u>190,452</u>

TABLE 2ASummary of Adjustments to Rate Base - Montreal Extension  
( \$000 )

<u>Explanation</u>	<u>Transportation Plant</u>	<u>Accumulated Depreciation</u>
Disallowance of 3 tanks to the Older System	4,557	(816)
6 months depreciation	-	( 57)
	<u>4,557</u>	<u>( 873)</u>

3.3 Plant in Service3.3.1 Assets Specially Classified

In the Board's Reasons for Decision dated May 1978 the Company was directed to remove certain assets not fully used and useful in providing oil pipeline transportation service from Plant in Service and to categorize them as Assets Specially Classified. The Board directed that the net book value of these assets be amortized through the Cost of Service over a five-year period commencing 1 July 1978 and that a return on these assets of one-half the rate applied to Plant in Service on the Older System be allowed in the revenue requirement of the Older System.

Following are details of the Assets Specially Classified and their average net book value during the test period:



	Net Book Value 1 Jan. 1980 (1)	Amortization Provision 1980 (2)	Net Book Value 31 Dec. 1980 (3)	Net Book Value (Average cols. (1) and (3)) (4)
100 miles of 16" pipe in Sask. and Man.	\$ 765,899	\$ 218,828	\$ 547,071	\$ 656,485
34" Pipe	7,916,247	2,265,084	5,687,463	6,801,855
24" Pipe	429,654	122,758	306,896	368,275
Smithville Station No. 1	237,781	67,938	169,843	203,812
12" line Nanticoke Junction to Int'l Boundary	<u>923,101</u>	<u>274,243</u>	<u>711,858</u>	<u>817,480</u>
	<u>\$10,272,682</u>	<u>\$2,948,851</u>	<u>\$7,423,131</u>	<u>\$8,847,907</u>

#### Applicant's Position

In the present Application the Company requested a full rate of return on these assets on the grounds that, as a result of inflation, the half rate of return eliminated the opportunity for the shareholders to recover their capital intact. The Company stated:

"---where a substantial portion of that nominal return is a capital maintenance portion (i.e., compensation for inflation), the entire real rate of return is wiped out and, in economic terms, the shareholders do not even see a return of their capital invested." (Exhibit 35, page 5).

The Company also advanced three alternative possible treatments of these assets should the Board not see fit to apply a full rate of return to them.

#### Views of Intervenors

The Province of Quebec argued that the Board should not alter its previous decision since the Applicant had not shown that the assets specially classified were either fully used or necessary for normal operation.

### Views of the Board

In its Review Reasons for Decision in March 1978, the Board decided that while the Assets Specially Classified had originally been the result of prudent investment, nevertheless as they were no longer fully used and useful in oil pipeline transportation service, they could not be considered as earning a full return on the investment in them. However, in recognition of their standby and potentially useful value, the Board allowed a return on their undepreciated value at half the rate applicable to Plant in Service, and directed that they be amortized by an annual charge to Cost of Service for five years, in order to permit the Company to recover the capital invested in them. The Company agreed that the assets were not fully used in day-to-day operations but maintained that they were used for certain maintenance functions and useful as standby plant.

From the evidence adduced at this hearing the Board has not found sufficient reasons to change the treatment of these assets. The Board considers that the previous decision was correct, considering the extent of use of these assets. Accordingly, the Applicant's request is denied.

### 3.4 Completed Plant and Retirements

#### 3.4.1 Plant Units

During the hearing the Company confirmed that its additions to Plant in Service included some replacements of items not contained in the list of plant units filed with the Board in accordance with the Oil Pipeline Uniform Accounting Regulations ("OPUAR"). The Regulations require that replacements of items not included in the list of plant units be accounted for as expenses rather than as additions to plant. In this case the Board is satisfied that the items were such as should reasonably be considered as additions to the plant

rather than expenses. A Company witness testified that a more valid list of plant units would include the items concerned and the Board agrees with that. The Board further notes the Company's undertaking to file a revised and expanded list of plant units, which will include the items under consideration, before the end of 1980.

#### 3.4.2 Sarnia Tank Transfer

The Applicant applied to transfer three oil tanks, constructed under Certificate OC-30 at the Sarnia pumping station, from the Montreal Extension rate base to the Older System rate base. This would represent a transfer of \$4,557,438 of original cost along with corresponding accumulated depreciation of \$815,969. A Company witness stated that since all oil passing through Sarnia might be accommodated in any of the Sarnia tankage, the Company was unable to assign specific tanks to specific delivery locations. It was claimed that the tank farm in Sarnia was operated in the same manner as those at Cromer, Regina, and Edmonton, and that this transfer would provide an equitable allocation of costs to delivery locations.

It was acknowledged, however, that the tanks were built under the same Board authority - Certificate OC-30 - as that which covered the facilities for the Montreal Extension, and that the tanks were necessitated by the addition of the Extension to the system.

#### Views of the Board

The Board recognizes that these tanks are not separated either physically or operationally from the Older System, and that the tank farm is operated in a similar manner to those at Cromer, Regina, and Edmonton. However, the Board notes that the tanks were built under Certificate OC-30 in conjunction with the pipeline facilities between Sarnia and Montreal and were included with the facilities covered by the Deficiency Agreement between the Crown and the Company.



The Board finds that, for the purposes of rate base, the three tanks and related facilities should be retained as an integral part of the Montreal Extension.

#### 3.4.3 Retirements - Mainline Replacement Program

##### Background

To improve the integrity of line 3, and in the interest of public safety, IPL replaced a total of 60.9 kilometres of defective mainline pipe. Under Board Order No. XO-7-79, 15.2 kilometres was replaced in October 1979. In its Reasons for Decision, March 1980, the Board approved the replacement of the remaining 45.7 kilometres of mainline in the test year 1980.

##### Company's Position

In the application and subsequent responses, and during the hearing, IPL supported its accounting treatment of this replacement program as an "ordinary retirement". IPL provides for depreciation of its transportation plant assets according to the "group system" in accordance with Section 48 of the OPUAR. In the group system, a weighted average rate of depreciation is calculated for a particular group of plant accounts, a plant account, or a group of assets within a plant account, recognizing the fact that there will be variations in the service lives of the assets constituting the group, even among assets of the same class.

Section 49(1) of the OPUAR states:

"under the group system, in the case of an ordinary retirement of an individual asset in a group of assets, the accumulated depreciation attributable to the asset shall, for the purposes of these Regulations, be considered to be equal to the cost of the asset minus any amount that may reasonably be recoverable through salvage realization, whether or not the actual service life of the asset is shorter or longer than the anticipated service life of the group."

IPL's present straight-line depreciation rate of 2.86 percent per annum for pipelines (Account 153) is based on an estimated service value of 100 percent and an estimated service life of 35 years.

The Applicant stated:

"the retirement of the pipeline in question results from an abbreviated physical life the cause of which is a reasonably anticipated deterioration of the required physical capabilities of the asset rather than imposition of some unanticipated economic or foreign physical impairment resulting from other than normal operation of the pipeline".

The Applicant then concluded that, after 10 to 11 years of realized service life, these retirements constituted "ordinary retirements resulting from causes reasonably assumed to have been contemplated in prior depreciation provisions". The Applicant contended that such retirements did not constitute extraordinary retirements as defined in Section 40(1) of the OPUAR and were not therefore required to be accounted for in accordance with Section 40(2).

Section 40(1) of the OPUAR states:

"in respect of depreciable plant, extraordinary retirement means a retirement of depreciable plant that results from causes not reasonably assumed to have been anticipated or contemplated in prior depreciation or amortization provisions, including such causes as fire, storm, flood, sudden and complete obsolescence or unexpected and permanent shutdown of an entire operating assembly".

In its argument IPL stated:

"the fact that this pipe did not provide service for the expected average service life is not, in our submission, extraordinary. By definition, the term average life implies that some assets will last more than the average and some will last less; otherwise there would be no average".

Views of the Board

The Board finds that there is no evidence demonstrating that deterioration of the physical capabilities of this pipe could have been reasonably anticipated in the relatively short period of ten or eleven years. During the hearing reference was made to the evidence adduced at the facilities hearing held in Edmonton on 26 February 1980, and the Board notes that such evidence indicated unanticipated physical impairment.

To treat this item as an ordinary retirement would significantly and permanently overstate rate base thus allowing the Company to earn a return on the net book value of assets which no longer benefit pipeline operations. This plant has depreciated by only approximately 29 percent of its total original cost and if this were treated as an ordinary retirement it would have the effect of leaving 71 percent, the undepreciated balance of the total original cost, in rate base for either the remaining life of the plant group or the life of the Company, whichever period was shorter.

Based on the evidence, the Board has decided to treat this item as an extraordinary retirement, transferring the amount of loss on retirement from account 31 (Accumulated Depreciation) to account 45 (Other Deferred Debits). The unrecovered cost is to be amortized over a five year period to Cost of Service.

Summary of Loss Determination

The 1979 extraordinary loss on retirement of 15.176 kilometres of mainline is determined as follows:

Original cost	\$1,011,360
Deduct: Accumulated depreciation	<u>287,688</u>
Extraordinary loss on retirement in 1979	<u><u>\$ 723,672</u></u>

The 1980 extraordinary loss on retirement of 45.665 kilometres of pipeline is determined as follows:



Original cost		\$3,000,773
Add: Dismantling costs		<u>648,700</u>
		\$3,649,473
Deduct: Accumulated depreciation	\$ 919,409	
Salvage value	<u>147,400</u>	<u>1,066,809</u>
Extraordinary loss on retirement in 1980		<u>\$2,582,664</u>
Reduction in test year average rate base		<u>\$1,291,332</u>

### 3.5 Working Capital Allowance

The following table sets forth the various components of the Working Capital portion of the rate base, as requested by the Applicant and as allowed by the Board.

TABLE 3

	<u>Company's Revised Application</u>	<u>NEB Adjustments</u>	<u>NEB Determination</u>
<u>Older System</u>			
Cash cost of service	<u>\$78,805,999</u>	<u>\$(5,754,613)</u>	<u>\$73,051,386</u>
Cash working capital			
33/365 X 78,805,999	7,124,926	(2,121,406)	
25/365 X 73,051,386			5,003,520
Operating materials and supplies inventories	770,339	(6,927)*	763,412
Prepaid expenses	466,000	(4,190)*	461,810
Other working capital requirements	<u>1,743,770</u>	<u>(1,743,770)</u>	<u>-</u>
	<u>\$10,105,035</u>	<u>\$(3,876,293)</u>	<u>\$ 6,228,742</u>
<u>Montreal Extension</u>			
Cash cost of service	<u>\$ 8,798,445</u>	<u>\$( 97,103)</u>	<u>\$ 8,701,342</u>
Cash working capital			
33/365 X 8,798,445	795,476	( 199,494)	
25/365 X 8,701,342			595,982
Operating materials and supplies inventories	75,252	( 677)*	74,575
Prepaid expenses	139,195	( 1,252)*	137,943
Other working capital requirements	<u>40,960</u>	<u>( 40,960)</u>	<u>-</u>
	<u>\$ 1,050,883</u>	<u>\$( 242,383)</u>	<u>\$ 808,500</u>

\* Adjusted for inflation rate changes.

### 3.5.1 Cash Working Capital

#### Applicant's Position

The Company requested a provision for cash working capital based upon the application of a 33-day lag to the amount of the cash cost of service. This total lag comprises a net receipts/disbursements lag of 17.9 days, based on the Company's lead/lag study, and a 15-day cushion to compensate for "lumpiness" in the operating cash flows of the Company on a day-to-day basis.

The 17.9 day lead/lag result contrasts with that of the 1975-1976 study - 3.5 days - the major difference being in the receipts portion:

	<u>Current Study</u>	<u>1975-1976 Study</u>
Receipts	41.4	29.4
Disbursements	<u>23.5</u>	<u>25.9</u>
Net lag	<u>17.9</u>	<u>3.5</u>

The current figure of 41.4 days is a composite of two items: lag between time of delivery and receipt of payment (30.8 days in the current study versus 29.4 days in the previous), and lag between deemed time of service and the date of delivery (10.6 days in the current study, but not provided for in the first study).

The receipts lag should be a measure of the time between the provision of service and the time of receipt of payment for that service. The previous study provided for the lag only from the time at which service was completed, thus resulting, in the Applicant's view, in an underestimate. In the present application the time of provision of service was deemed to be the average mid-point in the period between the receipt of a batch of oil for shipment and the delivery thereof.

The provision for lumpiness of 15 days was a matter of arbitrary judgment based primarily on the results in the rate proceedings for Trans Mountain Pipeline Company Ltd. (January 1978) and Trans-Northern Pipe Line Company (November 1979).

#### Views of the Board

The Board accepts the Applicant's case on the determination of the lead/lag period per se, but has judged it appropriate to adjust downward the provision for lumpiness yielding a total provision for cash working capital of 25 days cash operating expenses.

### 3.5.2 Other Working Capital Requirements

#### Applicant's Position

The items which were included in the totals shown in Table 3 consist of the following:

	<u>Older System</u>	<u>Montreal Extension</u>
Imprest bank account balances	\$ 45,600	\$
Permanent advances	22,938	
Employee mortgages outstanding	121,843	
Unamortized rate hearing expenses	435,174	
Unamortized research & development	261,500	
Unamortized computer expenses	67,248	
Unamortized discontinued capital projects	775,467	
Miscellaneous special funds	14,000	
Deposits for acquisition of property outstanding		\$ 40,960
	<u>\$1,743,770</u>	<u>\$ 40,960</u>

The Company stated that these items should be included in rate base because they represented a commitment of the Company's capital.



Views of the Board

The Company's submissions and testimony were not successful in dispelling the possibility that some of these items might duplicate amounts included in the total cash working capital provision or other components of the allowance for working capital. The Board notes that regulatory authorities have generally accepted allowances for cash operating expenses, for inventories, and for prepaid expenses, as the components of the allowance for working capital in the rate base. The Board is not satisfied that the "Other Working Capital Requirements" proposed by the Applicant may not contain some elements of duplication of these three accepted components.

The Board therefore denies the request to include the "Other Working Capital Requirements" in the working capital allowance in rate base.

CHAPTER 4  
COST OF SERVICE EXCLUDING RETURN

4.1 Summary of Cost of Service Excluding Return

The Board has determined that the cost of service, excluding return, for the Older System and the Montreal Extension are as shown in Tables 4 and 5 respectively. Explanation for the Board's adjustments are contained in Sections 4.2, 4.3, 4.4, and 4.5.

TABLE 4

Cost of Service Excluding Return - Older System  
(\$000)

	<u>Company's Revised</u> <u>Application</u>	<u>NEB</u> <u>Adjustments</u>	<u>NEB</u> <u>Determination</u>
Salaries and wages	12,361	(332)	12,029
Operating fuel and power	26,652		26,652
Materials and supplies	2,195	(20)	2,175
Outside services	3,125	(27)	3,098
Other expenses	2,287	(20)	2,267
Amortization of rate hearing costs	310	167	477
Oil losses	1,809		1,809
Law expenses	65	(1)	64
Rent	1,252		1,252
Employee benefits	2,987	(80)	2,907
Insurance	589		589
Costs associated with managing investments	-	(3)	(3)
Taxes other than income	6,309		6,309
Provision for depreciation	12,735	(73)	12,662
Amortization of assets specially classified	2,949		2,949
Amortization of research and development costs	204		204
Amortization of costs of discontinued capital projects	1,024	(87)	937
Amortization of loss on mainline replacement		403	403
Other income deductions	(4,094)	(83)	(4,177)
Income taxes			
- current	23,206	(5,189)	18,017
- deferred	<u>(1,411)</u>	<u>(173)</u>	<u>(1,584)</u>
Total cost of service excluding return - Older System	<u>94,554</u>	<u>(5,518)</u>	<u>89,036</u>

TABLE 5

Cost of Service Excluding Return - Montreal Extension  
(\$000)

	<u>Company's Revised</u> <u>Application</u>	<u>NEB</u> <u>Adjustments</u>	<u>NEB</u> <u>Determination</u>
Salaries and wages	1,398	(38)	1,360
Operating fuel and power	2,180		2,180
Materials and supplies	263	(2)	261
Outside services	1,469	(7)	1,462
Other expenses	284	(2)	282
Oil losses	332		332
Law expenses	10		10
Rent	215		215
Employee benefits	341	(9)	332
Insurance	198		198
Taxes other than income	2,069		2,069
Provision for depreciation	6,867	73	6,940
Other	<u>39</u>	<u>(39)</u>	<u>-</u>
Total cost of service excluding return - Montreal Extension	<u>15,665</u>	<u>(24)</u>	<u>15,641</u>

#### 4.2 Operating Expenses

##### 4.2.1 Allowance for inflation

IPL, in its estimate of Materials and Supplies, Outside Services, Other Expenses, Law Expenses, and Prepaid Expenses, incorporated an inflation factor of 21.21 percent for the period from January 1979 to December 1980. This inflation factor was comprised of the estimated increase in the Consumer Price Index of 9.2 percent in 1979 and 11.0 percent in 1980. The Company stated that it could "see the merit of revising (the 1980) forecast in the direction of the forecast made by the Minister of Finance in the recent mini-budget" which projected a 10 percent rise in the Consumer Price Index.



The Board has concluded that an inflation factor of 20.12 percent, comprised of 9.2 percent for 1979 and 10.0 percent for 1980, would be appropriate.

4.2.2 Salaries, Wages and Employee Benefits

IPL in its estimate of wages and salaries provided for an increase of 9.5 percent for 1979 and 11.5 percent for 1980. In determining these increases the company referred to the following considerations:

- (a) an industry-wide increase in wages and salaries of 8.5 percent in 1979 and 10.5 percent in 1980,
- (b) an increase in the Consumer Price Index of 9.2 percent in 1979 and 11.0 percent in 1980; and
- (c) a 1 percent payroll increase for merit, progression and competitive adjustments.

IPL projected employee benefits to be 23.87 percent of total payroll based on a five-year average, plus the introduction of a dental plan in 1980.

The Board accepts the Company's allowance for employee benefits. However the Board is of the opinion that the Company did not provide sufficient evidence in regard to industry-wide wage and salary increases. For reasons given above with regard to the allowance for inflation, the Board believes that IPL's estimated increase in the Consumer Price Index should be adjusted downwards. The Board is also of the opinion that the Company did not sufficiently explain or justify the components making up the 1 percent factor.

The Board concludes that wage and salary escalation factors of 8.5 percent and 9.5 percent for 1979 and 1980 respectively are appropriate in the circumstances.

#### 4.2.3 Costs Associated with Management of Investments Applicant's Position

The Company maintains that the management of Interprovincial's investment income is carried out on a part-time basis by an assistant to the treasurer and that this same person also manages the cash of the regulated operations of the Company. A witness testified that the management of this investment income puts no additional burden on the Company's accounting staff or its computer facilities and that, in fact, it is possible to take the position that utility operations benefit from the ready availability of cash from short-term investments should it be required in carrier operations.

IPL stated:

"the costs associated with the temporary cash investments amounts to \$3,210 for safekeeping and wire transfer charges".

#### Views of the Board

The Board is not certain that the amount \$3,210 represents the entire cost of managing Interprovincial's temporary cash investments but in the absence of evidence to substantiate any greater amount, \$3,210 will be deducted in determining the cost of service. The Board wishes the Company to note that this matter will be examined in greater depth in subsequent rate hearings.

#### 4.2.4 Amortization of Rate Hearing Costs Applicant's Position

In the application, the Company amortized the costs of this rate case over a three-year period and submitted that the best matching of costs and revenues and the associated rate stability would be achieved through amortization rather than expensing through cost of service in one year. In addition the Company included the unamortized portion of the costs of this and the first rate hearing in the rate base under "Other Working Capital Requirements", contrary to the Board's decision in the first rate case. This latter matter has also been dealt with in section 3.5.

Views of the Board

In the first rate case, the Board concluded that it was reasonable to expect that IPL's costs for the first rate case might significantly exceed those of future cases and that the cost of service in the first test period should not include the full cost of the initial rate hearing. The Board noted specifically that the unamortized portion of this cost was not considered a constituent of the Company's rate base.

The Board sees no grounds for altering the previous decision to exclude the unamortized rate hearing expenses from rate base. However, the Board is of the opinion that the full cost of this rate hearing, which the Company estimates to be \$250,000, should be charged directly to the test-year cost of service. The Board, therefore has increased the expense of amortization of rate hearing costs by \$166,667.

4.3 Depreciation and Amortization4.3.1 Depreciation of Plant in Service - Older System and Montreal Extension.Views of the Board

The Board has rejected IPL's request to transfer the three tanks from the Montreal Extension to the Older System and has adjusted the rate base accordingly. The associated depreciation expenses amounting to \$73,301 must also be charged to the Montreal Extension as determined below:

<u>NEB Account</u>	<u>Title</u>	<u>Original Cost</u>	<u>Depreciation Expenses</u>
156	Buildings	\$ 78,836	\$ 1,127
158	Pumping equipment	174,139	4,353
159	Station oil lines	1,441,742	24,005
160	Other station equip.	505,173	10,103
161	Oil tanks	2,357,548	33,713
		<u>\$4,557,438</u>	<u>\$73,301</u>



#### 4.3.2 Amortization of Research and Development Costs

The Board notes the Applicant's testimony that research and development costs which the Company has amortized in the cost of service were incurred on the Kitimat project and that no further research and development costs associated with this project will be incurred.

#### 4.3.3 Amortization of Costs of Discontinued Capital Projects - Older System

##### Applicant's Position

The Company has found it necessary to increase its provision for loss on discontinued capital projects by \$443,776, and to include the amortization charge over the remaining 1.5 years of the original three-year period. The additional estimated loss to be charged to the cost of service would amount to \$295,851.

##### Views of the Board

In determining the additional estimated loss the Company did not forecast any transfer of materials to other projects. However, a Company witness testified that there would be a transfer of approximately \$130,000 which the Company expects to use in construction. Otherwise there was no indication that there would be any further use of the material within the Company.

The Board therefore has adjusted the proposed increase by deducting \$130,000 from the total to be amortized causing a decrease in the cost of service of \$86,667 as shown in the following schedule.

	Company's Revised <u>Application</u>	NEB <u>Adjustments</u>	NEB <u>Determination</u>
Amortization in accordance with first rate hearing decision 1 July 1978 to 30 June 1979, \$2,184,505 X 12/36	\$ 728,168	-	\$ 728,168
Additional estimated loss	<u>295,851</u>	<u>(\$ 86,667)</u>	<u>209,184*</u>
Amortization of costs of discontinued capital projects during test year	<u>\$1,024,019</u>	<u>(\$ 86,667)</u>	<u>\$ 937,352</u>

$$1 \quad (\$443,776 - \$130,000) \div 1.50 = \underline{\underline{\$209,184}}$$

#### 4.3.4 Amortization of Loss on Mainline Replacement Views of the Board

The Board has determined that the loss on retirement of pipeline replaced in 1979 and 1980 should be considered as an extraordinary loss to be amortized to cost of service over a five-year period. This is further explained in section 3.4.3.

The amount relating to 1980 is calculated as follows:

1979 retirement	\$144,734
1980 retirement, assumed to occur halfway through the year	<u>258,266</u>
	<u>\$403,000</u>

#### 4.4 Other Income Deductions

##### 4.4.1. Miscellaneous - Commissions Paid on Bonds Purchased

Commissions on bonds reacquired and funded debt administration expenses have been removed from cost of service for the reasons contained in sections 5.1.2 and 5.2. Amounts involved are:

	<u>Older System</u>	<u>Montreal Extension</u>
Commission on bonds reacquired	\$35,739	\$ -
Funded debt administration expenses	<u>47,231</u>	<u>39,001</u>
	<u>\$82,970</u>	<u>\$39,001</u>

#### 4.5 Provision for Income Taxes

An expert tax witness for the Applicant provided testimony relating to the appropriate method of calculating the Company's provision for income taxes. This witness suggested that the Board (a) determine a just and reasonable capital structure, (b) determine the just and reasonable costs to be associated with each component of capital and (c) let the provision for income taxes be derived from the carrier operation's dollar return on equity. The Applicant in its final argument strongly urged the Board to follow the steps recommended by that witness.

The Applicant's expert rate-of-return witnesses stated that 40 to 45 percent common equity was appropriate for the Older System capital structure based on their assessment of the level of Older System business risks.

The Board accepts the evidence provided by these expert witnesses. Accordingly, the Board has approved a 42½ percent common equity ratio for the Older System capital structure and approves the methodology of calculating the provision for income taxes as recommended by the Company's expert tax witness.

Table 6 which follows shows details of the calculations of the provision for income taxes and deferred taxes respectively.



TABLE 6Provision for Income Taxes and Deferred Income Taxes

	<u>Company's Revised Application</u>	<u>NEB Determination</u>
<u>Provision for Income Taxes - Older System</u>		
Rate base	<u>\$256,431,378</u>	<u>\$242,391,040</u>
Return	27,792,033	23,715,539
Less: Return related to interest	<u>(7,355,734)</u>	<u>(8,005,449)</u>
Return related to equity	20,436,299	15,710,090
Adjustments for permanent differences:		
Non allocable non deductible cost items	345,598	345,598
Allocable non deductible cost items	208,757	198,319
Taxable capital gain on debt reacquired	-	205,200
Accounting capital gain offset against tax deductible interest expense	<u>-</u>	<u>(632,700)</u>
Income tax base	(a) <u>20,990,654</u>	(a) <u>15,826,507</u>
Provision for income taxes (a) x $\frac{0.5094}{1-0.5094}$	<u>21,795,024</u>	<u>16,432,985</u>
<u>Calculation of Deferred Income Taxes</u>		
Estimated capital cost allowance	<u>24,833,779</u>	<u>24,534,811</u>
Less: Estimated depreciation	27,949,377	27,990,010
Less: Depreciation on land rights	(318,262)	(318,262)
Depreciation on AFDC	<u>(27,336)</u>	<u>(27,336)</u>
	<u>27,603,779</u>	<u>27,644,412</u>
Timing difference	<u>(2,770,000)</u>	<u>(3,109,601)</u>
Deferred Income Taxes @ 0.5094	<u>(1,411,038)</u>	<u>(1,584,031)</u>
<u>Current Provision for Income Taxes</u>		
Provision for income taxes	21,795,024	16,432,985
Add: Drawdown of deferred income taxes	<u>1,411,038</u>	<u>1,584,031</u>
Current income taxes payable	<u>\$ 23,206,062</u>	<u>\$ 18,017,016</u>



CHAPTER 5  
RATE OF RETURN ON RATE BASE

5.1 Summary of Rate of Return - Older System

5.1.1 Capital Structure

The Applicant submitted a capital structure embodying a common-equity ratio of 53.13 percent but the Applicant's expert rate-of-return witnesses stated on a number of occasions in their testimonies that a 40 to 45 percent common equity was appropriate for the Older System capital structure based on their assessment of the level of Older System business risks.

As addressed in section 4.5 of these Reasons for Decision concerning the provision for income taxes, the Company's expert tax witness testified that the determination of a just and reasonable capital structure was a condition which should be precedent to the determination of the just and reasonable costs to be associated with each component of capital, and secondly that the provision for income taxes should be derived from the carrier operation's dollar return on equity in line with the just and reasonable capital structure and associated component costs.

The Board accepts the evidence provided by the expert rate-of-return witnesses that a 42½ percent common equity is appropriate for the Older System capital structure given its level of business risks and accordingly approves that common-equity ratio for use in determining costs for the various capital components of the Older System and for use in the determination of the provision for income taxes.

5.1.2 Cost of Debt

The Company applied for a cost rate of 8.28 percent for its Older System long-term debt. Estimated test year capital gains on purchase of Company debt of \$666,000 were not



taken into account in the determination of the 8.28 percent cost rate. However, the Applicant applied to have \$35,739 of commissions on bonds purchased and \$47,231 of funded debt administration expense included in its Older System cost of service.

The Applicant maintained that capital gains on purchase of Company debt should accrue to the benefit of the Company's equity investors. Although the Company was aware that the Board had found in other cases that capital gains on debt redemption should be credited to the cost of debt, it maintained that its situation was different from those of other companies in that other companies are in an expanding phase of their life cycle and are continually refunding low-cost debt and replacing it with high-cost debt. In final argument Interprovincial suggested an alternative manner of recognizing the gains on the redemption of long-term debt in the event that the Board did not agree with the Company's submission. The suggested alternative involved amortization of the after tax sinking fund gains over the life of the respective debt issues. This would provide for rate stability because it would compensate for the fact that there is no normal or representative level of sinking fund gains since they fluctuate with the level of interest rates and the Company's activity in the debt market on a year-by-year basis.

It is the Board's opinion that crediting gains on debt redemption to the cost of debt more fairly reflects the actual cost of servicing long-term debt and the Board believes that such gains should be taken into account in the year in which they occur. In addition, the Board believes that it is more appropriate to reflect commissions on bonds repurchased and funded debt administration expense in the determination of

the embedded cost of long-term debt rather than in the cost of service excluding return. Accordingly, the Board finds 7.74 percent to be an appropriate cost rate for the Older System long-term debt.

5.1.3 Rate of Return on Common Equity

The Applicant's expert rate-of-return witnesses contended that Interprovincial faced greater business risks than gas transmission companies because of a threat of competition, lack of long-term contracts or demand-charge components in its tariffs, greater supply and demand risks and greater political and regulatory risks.

Company witnesses testified that there was a threat of competition but it was also recognized that any potential risks due to a threat of competition were reduced by current government policy under which the Ontario market and part of the Montreal market are supplied by western Canadian crude oil.

As for demand risk, the expert rate-of-return witnesses emphasized the fact that Interprovincial sells its services on a monthly basis without a demand charge; it must use forecasts as a basis for setting tariffs and can only hope that the variables involved will produce throughput sufficient to achieve the allowed returns. It was noted by the Company's witnesses that the Board's rules provide for adjustments in rates due to revisions in forecast throughput volumes and that the Board is in a position to cushion the adverse impact of loss of throughput volumes.

With respect to supply risks, the expert rate-of-return witnesses testified that Interprovincial was riskier than gas transmission companies because of lower reserve to production ratios and constraints of producibility in Alberta.

Uncertainty related to possible changes in policies concerning import quotas in the United States and export curtailments in Canada and possible changes in government policies if the recent petroleum discoveries off the East Coast prove commercial, were cited as potential risk factors. The primary regulatory risk put forth by the Applicant's witnesses related to the potential disallowance of costs in the future as throughputs decline.

Extensive statistical evidence was presented on business risk and it was submitted that the business risk of Interprovincial's carrier operations was greater than that of natural gas pipelines but somewhat less than that of other oil pipelines.

With regard to financial risk which varies inversely with the percentage of common equity in a company's capital structure, the expert rate-of-return witnesses felt that an equity ratio of 40 to 45 percent was consistent with the business risks confronting the Older System and  $42\frac{1}{2}$  percent was considered to be an appropriate point for departure in determining recommended rates of return for equity. The  $42\frac{1}{2}$  percent common equity ratio used as a point of departure contrasted with the 53.130 percent equity ratio submitted in Interprovincial's Older System applied-for capitalization. One rate-of-return witness stated that the choice of capital structure affects the respective costs of its different components, and also impacts on the income tax component of the cost of service and that the total cost is minimized when the debt to equity ratio is consistent with the business risks.

Using discounted cash flow, risk premium over interest rates, comparable earnings tests and other techniques designed to measure the cost of common-equity capital, the witnesses determined rates of return that ranged from 16 to  $16\frac{1}{2}$



percent on common equity constituting  $42\frac{1}{2}$  percent of rate base. However, because the Applicant had submitted a 53 percent common equity, one witness determined a rate of return of  $14\frac{1}{2}$  percent for the higher 53 percent applied-for common equity, then suggested adding  $\frac{1}{4}$  to  $\frac{1}{2}$  percent to compensate for loss of financing flexibility because of the existence of the Montreal Extension debt, and finally recommended  $14\frac{3}{4}$  to 15.0 percent as a reasonable rate of return on the applied-for 53 percent common equity. The other rate-of-return witness recommended a rate of return of between 15 to  $15\frac{1}{2}$  percent on the applied-for 53 percent common equity after considering a downward adjustment from 16 to  $16\frac{1}{2}$  percent because of the influence of the higher applied-for 53 percent common equity, and an upward adjustment because of a loss of financing flexibility associated with the existence of the Montreal Extension debt.

The Board agrees that the Applicant's business risks are somewhat greater than those experienced by gas transmission companies. Given the overall risks confronting the equity investor in Interprovincial with respect to operations subject to this Board's jurisdiction, and on the basis of  $42\frac{1}{2}$  percent common-equity ratio, the Board finds  $15\frac{1}{4}$  percent to be a fair and reasonable rate of return on common equity for the test year.

The Applicant submitted the following capitalization for the Older System for the test year ending 31 December 1980:

	<u>Amount</u>	<u>Ratio</u> %	<u>Cost</u> <u>Rate</u> %	<u>Cost</u> <u>Component</u> %
Long-Term debt	\$107,652,000	34.664	8.28	2.8685
Deferred taxes	37,991,415	12.226		
Equity	<u>165,095,041</u>	<u>53.130</u>	15.00	<u>7.9695</u>
	<u>\$310,738,456</u>	<u>100.000</u>		<u>10.8380</u>



On the basis of the above findings the Board approves the following capitalization for the Older System for the test year ending December 31, 1980:

	<u>Amount</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Cost Component</u>
		%	%	%
Long-Term Debt	\$107,652,000	42.67	7.74	3.3027
Deferred Taxes	37,415,436*	14.83		
Equity	<u>107,223,757</u>	<u>42.50</u>	15.25	<u>6.4813</u>
	<u>\$252,291,193</u>	<u>100.00</u>		<u>9.7840</u>

\* The deferred taxes component has been adjusted to reflect the disallowance of the transfer of the oil tanks from the Montreal extension to the Older System.

## 5.2 Rate-of-Return Summary - Montreal Extension

The Applicant submitted the following average capitalization for the Montreal Extension for the test year ending 31 December 1980:

	<u>Amount</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Cost Component</u>
		%	%	%
Long-Term Debt	\$206,381,500	93.48	10.44	9.7593
Deferred Income Taxes	<u>14,388,332</u>	<u>6.52</u>		
	<u>\$220,769,832</u>	<u>100.00</u>		<u>9.7593</u>

The Board accepts this capitalization for the Montreal Extension with one exception; it believes that it is more appropriate to reflect funded debt administration expense in the determination of the embedded cost of long-term debt rather than in the cost of service excluding return. Factoring the funded debt administration expense of \$39,001 into the cost of debt rather than into the cost of service results in a long-term debt cost rate of 10.46 percent for the Montreal Extension.

Accordingly, the Board approves the following capitalization for the Montreal Extension for the test year ending 31 December 1980:

	<u>Amount</u>	<u>Ratio</u>	<u>Cost</u> <u>Rate</u>	<u>Cost</u> <u>Component</u>
		<u>%</u>	<u>%</u>	<u>%</u>
Long-Term Debt	\$206,381,500	93.54	10.46	9.7843
Deferred Income Taxes	<u>14,263,023*</u>	<u>6.46</u>		
	<u>\$220,644,523</u>	<u>100.00</u>		<u>9.7843</u>

\* The deferred taxes component has been adjusted to reflect the disallowance of the transfer of the oil tanks from the Montreal Extension to the Older System.

### 5.3 Return Summary

Considering all of the above factors, the Board, as a matter of judgment, finds that the return after taxes on the rate base of the Older System shall be \$23,716,000 and the return on the rate base of the Montreal Extension shall be \$18,634,000.

Table 7 contains a summary of the return applied for and as determined by the Board.

TABLE 7

RETURN SUMMARY

	<u>Rate of Return(%)</u>		<u>Rate Base (\$000)</u>		<u>Return (\$000)</u>	
	<u>Company Application</u>	<u>Approved by Board</u>	<u>Company Application</u>	<u>Determined by Board</u>	<u>Company Application</u>	<u>Determined by Board</u>
Older System						
- full return	10.8380	9.7840	256,432	237,967	27,792	23,283
- assets specially qualified	-	4.8920	-	8,848	-	433
Total Older System			256,432	246,815	27,792	23,716
Montreal Extension	9.7593	9.7843	187,009	190,452	18,251	18,634
TOTAL			443,441	437,267	46,043	42,350

5  
1  
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## CHAPTER 6

TOTAL COST OF SERVICE/REVENUE REQUIREMENT

The net revenue requirement that IPL is authorized to collect by means of tolls for the transportation of oil will consist of the cost of service plus return on rate base less revenues to be received from operations other than pipeline transportation service.

The following table is a summary of the revenue requirements for the two sections of the systems and for the Canadian operations in total.

TABLE 8

	<u>Company's Revised Application</u>	<u>NEB Adjustments</u>	<u>NEB Determination</u>
(a) Older System			
Cost of service	94,554	(5,518)	89,036
Return	27,792	(4,076)	23,716
Gross revenue requirement	<u>122,346</u>	<u>(9,594)</u>	<u>112,752</u>
Other revenue	(360)	-	(360)
Net revenue requirement	<u>121,986</u>	<u>(9,594)</u>	<u>112,392</u>
(b) Montreal Extension			
Cost of service	15,665	(24)	15,641
Return	18,251	383	18,634
Net revenue requirement	<u>33,916</u>	<u>359</u>	<u>34,275</u>
(c) Total net revenue requirement	<u>155,902</u>	<u>(9,235)</u>	<u>146,667</u>





CHAPTER 7  
TOLL DESIGN AND OTHER TARIFF MATTERS

7.1 Definitions

For purposes of calculation of tolls, the following definitions shall apply:

- |                             |   |
|-----------------------------|---|
| Integrated System Tolls     | - means tolls which would be paid by all shippers on the Interprovincial system, derived from the revenue requirement of the entire integrated system.                                    |
| Modified Older System       | - means that pipeline system which would be operated by Interprovincial in Canada if the extension from Sarnia to Montreal did not exist.   |
| Modified Older System Tolls | - means tolls derived from the revenue requirement of the Modified Older System.  |
| Two-Part Tolls              | - means the system of toll design in which the total tolls for shipments to Montreal consist of the Modified Older System tolls plus the toll for transportation from Sarnia to Montreal. |

## 7.2 Throughput

A good estimate of throughput is necessary to the determination of just and reasonable tolls. A significant portion of the cost of service is fixed and hence a large part of the tolls consists of fixed costs divided by throughput. Just and reasonable tolls are, therefore, sensitive to changes in throughput.

The Board considers the throughput forecast by the Applicant to be reasonable and accepts it for the purpose of toll design.

## 7.3 NGL and Refined Product Surcharges

Shipments of natural gas liquids ("NGL") material and refined products are subject to surcharges over the light crude tolls. The principal shipper of NGL material, Dome Petroleum Limited ("Dome"), suggested a method of arriving at a credit for tankage facilities provided by the NGL shipper as IPL provides tankage for crude oil only.

Dome through cross-examination established that the tankage charge would represent 58.33 percent of the terminal-ling charge for the test year, based on data in the Applicant's submissions. This shipper suggested that a credit of 58.33 percent of the terminalling charge should be substituted for the 7.9 cents per cubic metre credit which has historically been allowed by the Company in calculating the NGL surcharge.

Counsel for Interprovincial in argument stated that the 7.9 cents per cubic metre allowance, being an historical figure, might not reflect existing circumstances and saw merit in the suggested procedure put forth by Dome.

The Board agrees with the procedure suggested by the NGL shipper for estimating a suitable credit or allowance for shipper-provided special facilities. Since NGL volumes are terminalled twice on the IPL system, the Board will require the

Company in determining the NGL surcharge to deduct from the revenue requirement relating to NGL movements a credit equal to twice the dollar amount obtained by multiplying 58.33 percent of the terminalling charge, expressed in cents per cubic metre rounded to the nearest tenth of a cent, by the total NGL throughput for the test year.

Since the shippers of refined products also provide their own tankage facilities, the Board will require Interprovincial to calculate an appropriate credit to the refined product revenue requirement using the same methodology as set out for NGL movements.

#### 7.3.1 NGL Tariffs

Dome suggested that the NGL tariffs relating to the three lower pressure ranges should be discontinued since they have not been used for many years.

Counsel for IPL in argument stated that the Company supported this position.

Accordingly, the Board will require Interprovincial to remove any reference to tariffs relating to the three lower pressure ranges from future tariff filings applying to NGL.

#### 7.4 Cost Allocation

In the previous rate hearing, the Board approved the methodologies proposed by Interprovincial to allocate costs between the terminalling and transmission functions.

Interprovincial in its current application proposed a number of minor refinements to some of these allocation procedures to determine the appropriate terminalling and transmission costs.

The Board finds these refinements acceptable. The Board will require the Company to incorporate these revised



allocation procedures in its methodology used to allocate costs between the terminalling and transmission functions.

#### 7.5 Toll Design

##### Applicant's Views

Interprovincial proposed that the calculation of tolls on its system be changed to the integrated tolls approach. A witness for the Company indicated that integrated tolls for all the older system users would be lower than similar tolls based on the present modified older system toll design (also referred to as two-part toll or rate design). This witness stated that the Company has always believed in rate stability from the shipper's point of view and he thought the integrated rate structure, providing there were no likelihood of a long-term or sudden decrease in the Montreal volumes or a sudden sharp increase in the older system volumes, would give the Company a stable rate structure. The witness also indicated that the Company would prefer, once having changed, to remain on the integrated rate structure as long as the differences in tolls between the two methods remained insignificant. A two to three cent difference between the two rates was not considered by the witness to be significant.

The Board in Section 4.5.5 of the IPL Phase III Reasons for Decision dated May 1978 described a test to be used in determining which of the two methods, integrated or two-part, should be used for toll design purposes. The last sentence in that section reads as follows:

"The applicable method to be used for toll design purposes is that which results in lower average transmission cost per barrel-mile for light crude to users of the older system."

The Company expressed uncertainty as to the intent of this statement. A witness for IPL stated that it seemed apparent to the Company that in using the word "transmission", the Board had been very careful to use transmission in a certain context. The Company interpreted section 4.5.5 to mean that all costs except those associated with transmission should be eliminated and the test should, therefore, be restricted to a comparison of the transmission costs per cubic metre kilometre. In referring to the Board's statement on page 4-6 of the May 1978 Reasons for Decision, Interprovincial noted that the Board referred to the lower toll for users of the older system as the basis for judging whether integrated tolls should be adopted.

The witness indicated that the Company now believes that the Board intended to compare tolls rather than transmission costs and suggested a method of applying the test in section 4.5.5 which would take into consideration the terminalling revenue requirement as well as the transmission revenue requirement. The Company's method would deduct from the integrated or two-part revenue requirement the revenue requirements with respect to NGL and refined product movements. The remaining revenue requirement would then be divided by the light crude equivalent cubic metre kilometres. The two average transportation costs expressed in cents per cubic metre kilometre would be compared and the applicable method to be used for toll design purposes would be that which resulted in the lower average transportation cost per cubic metre kilometre for light crude to users of the older system.

#### Views of the Board

The Board notes that no intervenor objected to the Company's proposal that tolls be calculated using the integrated toll design approach.

The Board has given careful consideration to the evidence presented, in particular the Company's assumptions as to the decline in throughputs to Montreal projected for 1981 and 1982, and the Company's position that the method of calculating tolls should not change if the difference between the two methods is insignificant. Interprovincial's forecast of significant decreases in throughput to Montreal suggests that tolls calculated using the integrated rate design method would be in effect for a very short period. In addition, even at current throughputs the difference in tolls between the two rate design methods, as shown in the Company's submissions, is not large and will be even less as a result of the decisions made by the Board on this application.

The Company's assumption that the Board intended to compare tolls rather than transmission costs was correct. As to which of the two approaches to toll design should be used, the Board finds that the two-part or modified older system design should be continued.

However, to arrive at the revenue requirement related to transportation, the Board will require the Company to reduce the total revenue requirement by the revenues generated by the NGL and refined product surcharges rather than by the revenue requirements calculated for these movements.

#### 7.6 Determination of Tolls

The Board instructs the Company to design tolls and tariffs using the principles and allocation methodologies set out in the Board's Reasons for Decision dated May 1978 as amended by these Reasons for Decision. The tolls and tariffs should be designed to recover net revenue requirements of \$112,392,000 for the Older System and \$34,275,000 for the Montreal Extension.



### 7.7 Toll Adjustment Procedure

Interprovincial submitted for the Board's consideration a procedure whereby tolls and tariffs could be adjusted beyond the test year without resorting to a public hearing except in situations where any of the following conditions were present:

- (a) a change in the approved rate of return on rate base was being sought by the Company;
- (b) a material change in accounting methods, rate design or cost allocation principles was proposed; or
- (c) the Board considered that a hearing would be in the public interest.

The Board sees merit in the procedure proposed by Interprovincial and recognizes the desirability of a procedure for adjusting tolls, in certain circumstances, without resorting to a public hearing. The objective of such a procedure would be to facilitate toll and tariff changes, under certain circumstances, with a reduction of expense and regulatory lag, while at the same time maintaining the opportunity for input by all interested parties.

Interprovincial has provided the Board with a framework for the procedure for expedited toll adjustments, the details of which need to be developed. The Board will study this matter further with the objective of issuing guidelines at an early date. An opportunity for further comments by Interprovincial and other potentially affected parties will be afforded.




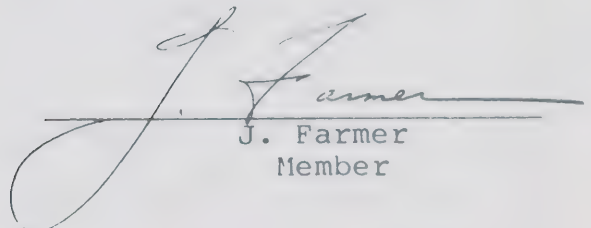


CHAPTER 8

DISPOSITION

Throughout the preceding chapters, the Board has recorded a number of decisions. The foregoing, together with Order No. TO-1-80, which orders Interprovincial to design tolls and file new tariffs and tolls conforming therewith and which is shown as Appendix I hereto, set forth our Decision in this matter.

  
R.F. Brooks  
Presiding Member

  
J. Farmer  
Member

  
J.L. Trudel  
Member



NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TO-1-80

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder, and

IN THE MATTER OF an application by Interprovincial Pipe Line Limited (hereinafter called "Interprovincial") for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-J1-1.

B E F O R E:

R.F. Brooks	)	
Associate Vice-Chairman	)	On Monday the 23rd day
J. Farmer	)	of June, 1980
Member	)	
J.L. Trudel	)	
Member	)	

UPON an application by Interprovincial Pipe Line Limited dated the 21st day of December, 1979, as amended, for an Order under Section 50 of the National Energy Board Act fixing the just and reasonable tolls and tariffs Interprovincial may charge for or in respect of the transportation of crude oil and other liquid hydrocarbons and for such further order or orders as will enable the Company to file a tariff containing tolls which are just and reasonable;

AND UPON the Board having heard evidence and submissions relating to the said application at a public hearing which commenced on the 13th day of May, 1980;  
THEREFORE IT IS ORDERED THAT:

1. The test year upon which Interprovincial's tolls and tariffs shall be based is 1 January 1980 - 31 December 1980.



2. The test year throughputs upon which Interprovincial's tolls and tariffs shall be based, shall be those contained in the Company's throughput forecast dated May 1980, as set out in Appendix "A" hereto.

3. The rate base, cost of service, other revenue and return applicable to the Older System are hereby fixed for the test year as follows:

(a) Rate Base -

Facilities earning full return	\$237,967,000
Specially classified assets	\$ 8,848,000
Total rate base	<u>\$246,815,000</u>

(b) Cost of service (excluding return) \$ 89,036,000

(c) Return

on \$237,967,000 rate base at 9.7840%	\$ 23,283,000
on \$8,848,000 specially classified assets at 4.8920%	<u>\$ 433,000</u>
	<u>\$112,752,000</u>

(d) Less other revenue \$ 360,000

Net Revenue Requirement \$112,392,000

4. The rate base, cost of service and return applicable to the Montreal Extension are hereby fixed for the test period as follows:

(a) Rate Base \$190,452,000

(b) Cost of Service (excluding return) \$ 15,641,000

(c) Return on \$190,452,000 rate base at 9.7843% \$ 18,634,000

Net Revenue Requirement \$ 34,275,000

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5. Interprovincial's net revenue requirement ("allowable revenue requirement") for the test period shall consist of the combined net revenue requirements for the Older System and the Montreal Extension, and is hereby fixed at \$146,667,000.

6. Interprovincial shall design tolls and tariffs ("ordered tolls and tariffs") based on the principles and methodology set out in the Board's Reasons for Decision dated June 1980, and the ordered tolls and tariffs shall be designed to recover the net revenue requirement fixed in paragraph 5.

7. Interprovincial, within a reasonable time before 1 August 1980, shall file with the Board and serve upon interested persons the ordered tolls and tariffs, and notwithstanding filing, the ordered tolls and tariffs shall be and are hereby suspended until 1 September 1980, upon which date, unless otherwise ordered by the Board, they shall come into effect.

8. Those provisions of Interprovincial's existing tolls and tariffs, or any portion thereof, that are contrary to any Order of the Board including this Order, shall be disallowed, effective 1 September 1980

9. The Company shall file with the Board quarterly during the test period and each subsequent calendar year its forecast of calendar year throughput matching source and destination, beginning 1 October 1980.

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10. In this Order: "interested person" includes
- (a) Interprovincial's shippers
  - (b)
    - (1) Attorney General of Alberta
    - (2) Government of Saskatchewan
    - (3) Attorney General of Manitoba
    - (4) Ministry of Energy of Ontario
    - (5) Attorney General for the Province of Quebec
  - (c) Any person who notifies Interprovincial and the Board in writing that he wishes to be registered as an interested party in Interprovincial's tolls and tariffs, and is accepted by the Board as such.

"Montreal Extension" means the pipeline constructed by Interprovincial pursuant to Certificate of Public Convenience and Necessity No. OC-30 and any addition thereto from time to time authorized by the Board.

"Older system" means the pipeline constructed in Canada by Interprovincial other than the Montreal Extension.

DATED at the City of Ottawa, in the Province of Ontario, this 23rd day of June 1980.

NATIONAL ENERGY BOARD



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G. Yorke Slader  
Secretary

APPENDIX A TO  
ORDER TO-1-80

TEST YEAR 1980 THROUGHPUTS  
(cubic meters per day)

<u>DELIVERY LOCATION</u> (A)	<u>CRUDE SOURCE</u> (B)	<u>CRUDE TYPE</u> (C)	<u>VOLUME (M<sup>3</sup>/D)</u> (D)
Hardisty	Edmonton	LGT.	1,100
Kerrobert	Edmonton	LGT.	400
Milden	Edmonton	R.P.	2,000
Regina	Edmonton	LGT.	5,000
	Edmonton	R.P.	3,900
	Hardisty	HVY.	400
Gretna	Edmonton	LGT.	3,700
	Edmonton	R.P.	4,600
	Hardisty	LGT.	200
	Hardisty	HVY.	500
	Regina	R.P.	300
	Cromer	LGT.	800
U.S. Points	Edmonton	LGT.	6,000
	Edmonton	MED.	700
	Edmonton	HVY.	500
	Hardisty	LGT.	200
	Hardisty	MED.	400
	Hardisty	HVY.	5,400
	Kerrobert	MED.	900
	Kerrobert	HVY.	1,100
	Regina	HVY.	4,100
	Cromer	MED.	2,700
Sarnia	Edmonton	LGT.	41,000
	Edmonton	MED.	900
	Edmonton	HVY.	500
	Edmonton	NGL.	8,000
	Hardisty	LGT.	1,100
	Hardisty	MED.	100
	Hardisty	HVY.	400
	Kerrobert	NGL.	2,400
	Regina	HVY.	200
	Cromer	LGT.	2,700
	Cromer	MED.	2,200
	U.S. Points	USOL	7,100
Toronto	Edmonton	LGT.	16,200
	Hardisty	MED.	1,200
	Hardisty	HVY.	900
	Kerrobert	LGT.	200
	Kerrobert	MED.	1,000
	Kerrobert	HVY.	1,500
	Regina	LGT.	500
	Cromer	LGT.	600



<u>DELIVERY LOCATION</u> (A)	<u>CRUDE SOURCE</u> (B)	<u>CRUDE TYPE</u> (C)	<u>VOLUME (M<sup>3</sup>/D)</u> (D)
Toronto	U.S. Points	USOL	4,900
	Sarnia	LGT.	100
Nanticoke	Edmonton	LGT.	11,600
	Cromer	LGT.	1,300
	U.S. Points	LGT.	400
Buffalo	Edmonton	LGT.	800
	Hardisty	MED.	300
	Kerrobot	MED.	100
	Regina	HVY.	100
	U.S. Points	USOL	17,500
Montreal	Edmonton	LGT.	32,500
	Hardisty	LGT.	500
	Hardisty	MED.	4,800
	Hardisty	HVY.	1,700
	Cromer	LGT.	2,400
	Cromer	MED.	400
	U.S. Points	USOL	4,600
	Sarnia	LGT.	800
TOTAL DELIVERIES			218,400

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LGT. - Light Gravity Crude  
 MED. - Medium Gravity Crude  
 HVY. - Heavy Gravity Crude  
 R.P. - Refined Products  
 NGL. - Natural Gas Liquids  
 USOL - U.S. & Off-Shore Light Crude





